



IDAHO DEPARTMENT
OF HEALTH AND WELFARE

DIVISION OF
ENVIRONMENTAL QUALITY

1410 North Hilton, Boise, ID 83706-1255, (208) 373-0502

10436
Philip E. Batt, Governor

October 31, 1997

Ms. Katie Hain, Manager
Environmental Restoration Program
U.S. Department of Energy
Idaho Operations Office
850 Energy Drive
Idaho Falls, ID 83401-1563

RE: Review Comments on WAG 2 Draft Final Record of Decision

Dear Ms. Hain:

The Idaho Department of Health and Welfare, Division of Environmental Quality (IDHW/DEQ) has reviewed the WAG 2 Draft Final Record of Decision (ROD) dated October 1997 and has provided the enclosed comments to facilitate finalization of the ROD. Recognizing the Agencies have worked closely together in preparation of this document, there are still a number of revisions to be made to the document to reflect Agency discussions/agreements and to ensure consistency throughout the document. Assuming that the ROD is finalized to satisfy the comments contained herein or a separate resolution is achieved by the Agencies in the interim, IDHW/DEQ does not identify any disputable items under the FFA/CO at this time. However, given the number of comments and the need for the Agencies to identify an appropriate strategy for the "no longer contained in" listed hazardous waste issue, it would be prudent for DOE-ID to request an extension for document finalization. Based on the discussions to date, we do not believe that the "no longer contained in" issue would be elevated to dispute, rather there is a need for evaluation of the available information to determine whether it would be more cost-effective to conduct any necessary further characterization to support the "no longer contained in" request or to manage the Warm Waste Pond, TRA-19 and the Brass Cap Area as sites containing listed hazardous wastes. We suggest that discussions be initiated as soon as possible to facilitate achieving finalization of the ROD within the short timeframe remaining.

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Should you have any questions regarding these comments, please contact me at your earliest convenience at (208) 373-0528.

Sincerely,

A handwritten signature in cursive script, reading "E. Jean Underwood".

E. Jean Underwood
WAG 2 Manager
Remediation Bureau

EJU/jc

cc: Rick Poeton, EPA Region X
Wayne Pierre, EPA Region X
Dean Nygard, DEQ-Boise
Dave Hovland, DEQ-Boise
DEQ-Idaho Falls File

Enclosure

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GENERAL COMMENTS

1. There were a number of misspellings throughout the document in both the text and in several tables. After all revisions have been made to the draft final Record of Decision (ROD) in response to Agency comments, please conduct a "spell check" as part of document finalization.
2. Major components of the selected remedy for TRA-15, TRA-19, Brass Cap Area, and Sewage Leach Pond Berms and Soil Contamination Area (SLP-SCA) should be presented in bullet form in the Declaration section.
3. A brief summary of purpose as well as conclusions should be added to the single page of supporting information entitled "Allowable mercury liquid concentrations for four WAG 2 no action sites".
4. Please provide a copy of the cost estimate document entitled "Analysis of Alternatives for OU 2-13, LMITCO Cost Estimating Department".

SPECIFIC COMMENTS

1. Page iv, Paragraph 3

Please add the following bullet item after the fourth bullet item: "Periodic aboveground radiological surveys following completion of the covers to assess the effectiveness of the remedial action". This bullet item was erroneously deleted since Agency review/discussion of the bootleg version of the draft final ROD.

2. Page v, Paragraph 3

As per Agency discussions on October 29, 1997, this paragraph should be revised as follows: "Based on sampling to be conducted during the remedial design phase to determine the nature and extent of contamination, remediation...native soil cover." Specific sampling requirements will be detailed in the Remedial Design/Remedial Action Scope of Work (RD/RA SOW) and Remedial Action Work Plan (RAWP).

3. Page vii, Paragraph 4

Since there should be no ambiguity regarding the fact that the contingent

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remedy identified in the ROD for TRA-19 and Brass Cap Area must eventually be implemented, the first sentence should be revised as follows: "For the Soil Surrounding Tanks 1 and 2...with the contingency that when controls established under the Limited Action are not maintained...(to a maximum of 10 ft)."

4. Page viii, Paragraph 3, Sentence 3

For clarity, specify that a monitoring plan will be developed as per the OU 2-13 RD/RA SOW.

5. Page viii, Paragraph 2

The following standard language should be added at the beginning of this paragraph: "These remedies use permanent solutions and alternative treatment technologies to the maximum extent practicable. However, because treatment of radionuclide contaminated soil is not found to be practicable, these remedies do not satisfy the statutory preference for treatment as a principal element of the remedy."

In addition, replace the last sentence of the paragraph with the following: "If excavation, treatment and disposal are deemed necessary remedy components, then the preference for treatment as a principal element of the remedy will be satisfied. If not, containment alone will be sufficiently protective."

6. Page ix, Paragraph 1

The intent of this paragraph is unclear and, therefore, does not appear to be suitable for inclusion in the statutory determination section. Please provide additional clarification or remove the paragraph from the ROD.

7. Page 5-4, Section 5.2.1.1, Paragraph 2

The last two sentences on this page should be revised as follows: "The soil was also contaminated with very low concentrations of polychlorinated biphenyls (PCBs) (maximum concentrations...of 1E-04 to 1E-06). The Agencies have determined these soils need not be managed as PCB-contaminated soil since the residual PCB levels are below the Office of Solid Waste and Emergency Response directive guidance level of 25 ppm at Superfund Sites."

8. Page 5-6, Section 5.2.1.1

The fifth and sixth sentences should be revised as follows: "This determination will be made separate from this ROD based on an approved sampling and analysis plan and/or other supporting documentation. If the soil is determined to "no longer contain" listed hazardous waste, then at the time of the remedial action the soils will be managed based on whether the soil is characteristic hazardous waste." [This change should be made throughout the ROD where similar discussion occurs.]

9. Page 5-8, Section 5.2.1.3, Paragraph 2

Specify the type of samples collected in May 1996 from the Cold Waste Pond (e.g. sediment or effluent). In addition, please cite the reference which details this sampling event.

10. Page 5-10, Section 5.2.2.1

Since the non-radiological data collected at TRA-15 is to serve as a corollary for TRA-19 and the Brass Cap Area, then this section should present the non-radiological as well as radiological data.

11. Page 5-12, Section 5.2.2.2, Paragraph 1

It is stated that the "TRA-15 could serve as a corollary for release sites associated with the Hot Waste System because more complete characterization was performed at TRA-15 (radionuclides, metals, volatile, and semi-volatile organic compounds)." This is accurate in terms of supporting the baseline risk assessment. However, the data collected would not be sufficient to fully support a hazardous waste determination at TRA-15, TRA-19 and Brass Cap Area given the present knowledge of other listed hazardous wastes which were not sampled/analyzed as part of the general investigation at TRA-15.

12. Page 6-2, Section 6.1.2.2, Paragraph 1

The last three sentences of this paragraph should be replaced with the following: "Dermal absorption risks and hazard quotients for organic contaminants contained in WAG 2 soils were calculated at all of the retained release sites evaluated in the baseline risk assessment. It was determined that dermal exposure did not contribute significantly to risk based on these

calculations and combined with the knowledge that the predominant contaminants of concern at TRA (i.e., radionuclides) are not dermally absorbed to any great extent."

13. Page 6-15, Section 6.1.4, Paragraph 2

Revise the first sentence of this paragraph as follows: "Recent investigations have...in the TRA warm and hot waste systems when leaks from the systems to the environment occurred."

14. Pages 6-15 through 6-20, Section 6.2

The total number of sites for which ecological risk is posed, for which ecological risk is reduced through implementation of the remedies to mitigate human health risk, and for which only an ecological risk is posed are presented inconsistently throughout Section 6.2 or are not clearly identified. Please correct and clarify accordingly. Also, the specific site locations for which ecological risk is posed should be clearly identified with an added distinction made for those site locations posing only an ecological risk.

15. Page 6-15, Section 6.2

The fifth sentence should be revised as follows: "Based on the present contaminant...for this ROD, the remedies selected to address human health risks will serve to also reduce the ecological risk posed at [TBD] of [TBD] sites where both human health and ecological risk have been identified."

In addition, the last sentence of this paragraph should be revised as follows: "The remaining [TBD] of [TBD] sites pose an unacceptable ecological risk only. These sites will be reevaluated as part of the INEEL-wide ecological risk assessment; however, it is unlikely...additional actions at these sites."

16. Page 6-20, Section 6.2.3, Paragraph 3

Please cite and provide a copy of the reference(s) for the studies performed on the barn swallows. In addition, provide a copy of the D&D activity report for the TRA-645 building and any other documentation which may provide more detail on this event and its impact on the barn swallows. In addition, please provide an explanation as to why 16 USC 715 (Migratory

Bird Conservation Act) was eliminated as an action-specific ARAR given the exposure to radionuclides and possible effects on barn swallows from TRA operations.

17. Page 6-20, Section 6.2.4, Paragraph 3

Language from the ecological risk section of the Proposed Plan (Page 10) should be added to this paragraph to clarify that the need for remedial action at sites posing an unacceptable ecological risk will be determined based on the results of the INEEL-wide ecological risk assessment.

18. Page 6-22, Section 6.4, Paragraph 1

In the first sentence, replace the words "unacceptable risk" with the standard language "imminent and substantial endangerment".

19. Page 6-22, Section 6.4, Paragraph 2

This paragraph should be revised to include discussion related to those sites posing only an ecological risk, consistent with Specific Comment No. 13 and 15 above as well as the Proposed Plan.

20. Page 7-5, Section 7.2.2, Paragraph 3

The second sentence should be revised as follows: "This report, at a minimum, will include a description...each 5-year review."

21. Page 7-6, Section 7.2.3, Paragraph 2

The second sentence should be revised as follows: "This design, based on recent biointrusion research studies at the INEEL, was recently...(Figure 7-1)."

22. Page 7-6, Section 7.2.3, Paragraph 3

The last sentence should be revised as follows: "Deviation from this sequence of materials and respective material thicknesses is not anticipated; however, the engineered cover design may be refined during the remedial design phase."

23. Page 7-6, Section 7.2.3, Paragraph 4

Add the following to the end of this paragraph: "Specific design elements for the native soil cover will be developed during the remedial design phase."

24. Page 7-7, Figure 7-1

Delete "(natural, locally available material)" in reference to the native soil cover since the type and source of cover material should be refined during the remedial design phase.

25. Page 7-8, Section 7.2.4

Revise the last sentence as follows: "The goals of the post-ROD sampling will be to determine the nature and extent of contamination at the Chemical Waste Pond, although it is anticipated that mercury will be the primary focus of the sampling effort. The costs associated with excavation, treatment and disposal are estimated in Sections 8 and 9 of this ROD."

26. Page 7-18, Section 7.3.1.2, Paragraph 2

Revise the first sentence of this paragraph as follows: "Recent investigations have...in the TRA warm and hot waste systems when leaks from the systems to the environment occurred."

27. Page 7-19, Section 7.3.2.2

Add to the last sentence the words "if treatment were deemed necessary".

28. Page 8-2, Table 8-1

Add to the selected remedy description for the Chemical Waste Pond the words "with possible excavation, treatment and disposal".

29. Page 8-3, Section 8.1.2

Although the description of the selected remedy for the Chemical Waste Pond has improved, efforts should be made to clarify the description even further and to ensure that this clarified description is used consistently throughout the ROD. Again, given the complexity of the final remedy, a decision-analysis diagram should be prepared and incorporated into the ROD so that the decision-steps and logic for the path taken are clear. As per Agency discussions on October 29, 1997, the selected remedy for the

Chemical Waste Pond is Containment with a Native Soil Cover and Institutional Controls with Possible Excavation, Treatment and Disposal. The need for excavation, treatment and disposal will be determined on the basis of additional sampling to be performed during the remedial design phase.

In addition, the eighth and ninth sentences of the first paragraph should be revised as follows: "In order to make the final determination...how the soil would have to be managed, e.g., soils contaminated with mercury...as hazardous waste. Therefore...native soil cover with possible excavation, treatment and disposal after sampling...as a first step after signature of the ROD but before the final design is completed." The tenth sentence should start a new paragraph and be revised as follows: "The final cover design will consist of a sloped surface similar to that depicted in Figure 7-1."

30. Page 8-4, Section 8.1.5

Add the following paragraph to this section: "Performance standards will be implemented to ensure protection against direct exposure to the contaminated wastes while the site is under institutional control."

31. Page 8-4, Section 8.1.6

Revise the second sentence of this paragraph as follows: "Recent investigations have...in the TRA warm and hot waste systems when leaks from the systems to the environment occurred."

32. Page 8-5, Section 8.1.6, Paragraph 4

Combine the second and third sentences as follows: "When excavation...future, the performance standards described in Section 8.2 will be implemented to ensure...exposure to the contaminated wastes."

33. Page 8-5, Section 8.1.7, Paragraph 2

This paragraph should be revised to acknowledge that possible releases from a nearby hot waste line may have occurred and that this contamination may not be readily distinguishable from any warm waste line releases.

34. Page 8-6, Section 8.1.7

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Combine the second and third sentences as follows: "When excavation...future, the performance standards described in Section 8.2 will be implemented to ensure...exposure to the contaminated wastes."

35. Page 8-8, Section 8.2

Add the following sentences to the end of this section: "For the subsurface release sites, this will primarily be accomplished by eventual excavation and disposal of the contaminated soils. For the remaining sites, this will be accomplished through institutional controls."

In addition, this section should be revised to address treatment performance standards.

36. Page 8-8, Section 8.2.1

Delete the word "preliminary" from the title of this section. [This comment also applies to Sections 8.2.2 and 8.2.3.]

37. Page 8-8, Section 8.2.1, Paragraph 1

Revise the first bullet by replacing the word "caps" with the word "covers" and deleting "at any time after active institutional controls over the disposal sites are removed up to the design life of the cap".

38. Page 8-9, Section 8.2.1, Bullet 1

Replace "releases of radionuclides and hazardous waste" with "releases of radionuclides and non-radionuclide contaminants of concern".

39. Page 8-9, Section 8.2.3, Paragraph 1

Revise the first sentence as follows: "Performance standards...protection against direct exposure to the contaminants for a period of at least 100 years (corresponding to the point in time the contaminants have decayed to below levels of concern)."

In addition, please specify how and when this evaluation will be performed.

40. Page 8-17, Table 8-8

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Since separate costs were presented in the Proposed Plan for the excavation and disposal contingent remedy for the Brass Cap Area and TRA-19 (approximately \$550K each), please present separate costs in the ROD for these sites.

41. Page 9-3, Table 9-1, Warm Waste Pond

a) It is stated in the Chemical-Specific ARARs section that 40 CFR 264 requirements may be applicable based on the contained in determination. It is IDHW/DEQ's position that this statement should be deleted since there are no HWMA/RCRA chemical-specific ARARs associated with the Warm Waste Pond.

b) If the soil at the Warm Waste Pond contains a listed hazardous waste, it is the position of IDHW/DEQ that IDAPA 16.01.05.008 [40 CFR 264.309(a) & (b), 264.310 (a), and 264.310 (b)(1)(4)(5)(6)] would be an action-specific ARAR (relevant and appropriate).

42. Page 9-4, Table 9-1, Cold Waste Pond

If the soil at the Cold Waste Pond contains a listed hazardous waste, the following would be action-specific ARARs (applicable): IDAPA 16.01.05.006 [40 CFR 262.11]; IDAPA 16.01.05.008 [40 CFR 264 Subpart I]; and, IDAPA 16.01.05.011 [40 CFR 268.40 through 40 CFR 268.48]. If hazardous waste is disposed of in a landfill, IDAPA 16.01.05.008 [40 CFR 264 Subpart N] is applicable.

43. Page 9-5, Table 9-1, TRA-19

If the soil at TRA-19 contains a listed hazardous waste, the following would be action-specific ARARs (applicable): IDAPA 16.01.05.006 [40 CFR 262.11]; IDAPA 16.01.05.008 [40 CFR 264 Subpart I]; and, IDAPA 16.01.05.011 [40 CFR 268.40 through 40 CFR 268.48]. If hazardous waste is disposed of in a landfill, IDAPA 16.01.05.008 [40 CFR 264 Subpart N] is applicable.

44. Page 9-6, Table 9-1, Brass Cap Area

If the soil at the Brass Cap Area contains a listed hazardous waste, the following would be action-specific ARARs (applicable): IDAPA 16.01.05.006 [40 CFR 262.11]; IDAPA 16.01.05.008 [40 CFR 264 Subpart

I]; and, IDAPA 16.01.05.011 [40 CFR 268.40 through 40 CFR 268.48]. If hazardous waste is disposed of in a landfill, IDAPA 16.01.05.008 [40 CFR 264 Subpart N] is applicable.

45. Page 9-7, Table 9-1, TRA-15

Given that the selected remedy is solely limited action, if the soil at TRA-15 contains a listed hazardous waste, there are no HWMA/RCRA action-specific ARARs for TRA-15. For this reason as well, there would be no apparent need to develop a no longer contained in argument specific to TRA-15.

46. Page 9-8, Table 9-1, Additional ARARs for all Actions at all Sites

For the chemical-specific ARAR, IDAPA 16.01.11.200, delete the statement "(where more restrictive than IDAPA 16.01.02.299)".

47. Page 9-9, Section 9.2, Paragraph 9

The second sentence should be revised as follows: "The Agencies deem this risk-based CERCLA remedial action to be functionally equivalent to RCRA corrective action requirements to eliminate unacceptable risk." Also, the following should be added at the end of the paragraph: "RCRA closure requirements will be addressed separately from this ROD". As the Agencies have discussed, this would occur once the remedial action has been completed at the Chemical Waste Pond.

48. Page 9-11, Section 9.2

This portion of Section 9.2 should be subtitled "Additional ARARs". In addition, a paragraph should be included in this subsection regarding the Idaho Groundwater Quality Standards and Idaho Groundwater Quality Rule: "Remedial actions taken at WAG 2 must be protective of groundwater and demonstrate that water quality specifications found in the Idaho Water Quality standards and under the Idaho Groundwater Quality will be met or achieved."

49. Page 10-1, Section 10, Paragraph 1

The ninth sentence should be revised as follows: "However, either excavating...cleanup goals for the Chemical Waste Pond, although it is not clear which is most cost effective. Again, this section in particular, needs

to be made consistent with the remainder of the ROD in terms of the Chemical Waste Pond remedy description.

50. Appendix A, Page A-3, Comment No. 2

In the response, please specify where the Radiological and Environmental Sciences Laboratory, and the Environmental Research and Science Foundation survey reports are available to the public (e.g., library, etc.).

51. Appendix A, Page A-3, Comment No. 3

In the response, revise the first sentence as follows: "The CERCLA remedial action process requires prefinal and final inspections at completion of construction activities for long-term remedial actions or at completion of remediation for short-term remedial actions."

52. Appendix A, Page A-5, Comment No. 10

Revise the last sentence of the response to indicate "No Action with Monitoring".

53. Appendix A, Page A-10, Comment No. 25

The response to this comment should make reference to the current land-use document. This document provided the impetus for the 100-year industrial land use assumption.

54. Appendix A, Page A-13, Comment No. 32

Revise the fourth sentence as follows: "This continued monitoring effort provides the necessary information for evaluation of contaminant migration trends between the perched water system within the vadose zone and the aquifer below. Therefore, no additional vadose zone monitoring will be performed at any of the sites."

55. Appendix A, Page A-14, Comment No. 35

The response should be revised to refer to the response to Comment No. 20 in regards to the modeling predictions (i.e., contaminant concentrations predicted to fall below MCLs before the end of the 100-year INEEL institutional control period).

56. Appendix A, Page A-15, Comment No. 36

As above, the response should emphasize that contaminant concentrations will continue to decrease to acceptable levels in the near term.

57. Appendix A, Page A-15, Comment No. 37

The response should include the following sentence: "Note that sampling and analysis of strontium-90 will continue under the OU 2-12 ROD for both the deep perched water system and the aquifer."

58. Appendix A, Page A-15, Comment No. 38

Delete the last sentence in the first paragraph of the response. As acknowledged in this sentence, modifications of the engineered barrier design to take advantage of the evapotranspiration process is not necessary to achieve remedial action objectives. Therefore, expenditure of resources to evaluate such design modifications is unnecessary.

EDITORIAL COMMENTS

1. Page iv, Paragraph 3, Bullet 1

Delete the words "by capping". During our September 1997 WAG 2 meeting in Boise, the Agencies agreed to consistently use the term "cover" as opposed to "cap" or "barrier" in the ROD.

2. Page iv, Paragraph 3, Bullet 2

Delete the word "the" which precedes the words "INEEL CERCLA-generated".

3. Page v, Paragraph 5, Bullet 5

The word "covers" should be made singular.

4. Page v, Paragraph 5, Bullet 7

Delete the words "to industrial applications".

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5. Page vi, Paragraph 2, Bullet 9

Delete the words "to industrial applications".

6. Page vii, Paragraph 5

Revise the first sentence as follows: "The selected remedy addresses...Tanks 1 and 2 at Building 630 (TRA-19) and at the Brass Cap Area...such that exposure to contaminated media resulting in an unacceptable risk...would not be possible."

7. Page ix, Paragraph 2

The second sentence should be revised as follows: "These comprehensive statutory 5-year reviews...and overall effectiveness of the remedial actions."

8. Page 4-1, Section 4, Paragraph 1

Revise to indicate contaminated sediment "remains" or contaminated "sediments" remain.

9. Page 5-4, Section 5.2.1.1, Paragraph 2

Revise the second sentence as follows: "An interim remedial action...approximately 4 ft (1.2 m) of sediment from the sidewalls and 3 ft (0.9 m) of sediments from the base of the 1964 cell...into the 1952 cell."

10. Page 5-6, Section 5.2.1.2, Paragraph 1

Revise the sixth sentence to be consistent with the language in the RI/FS: "Possible disposal of pesticides, solvents, PCBs and biocides are suspected, but not documented."

In addition, insert the last sentence from the last paragraph on Page 5-6 at the end of the first paragraph: "Application materials...in late January 1997."

11. Page 5-6, Section 5.2.1.2, Paragraph 3

The period after the word "mercury" in the second sentence should either be deleted or changed to a comma.

12. Page 5-6, Section 5.2.1.2, Paragraph 4

Delete the first sentence regarding the Chemical Waste Pond being taken out of service in approximately 2 years.

13. Page 5-18, Section 5.2.5.5, Paragraph 3

The word "sites" should be made singular.

14. Page 7-5, Section 7.2.2, Paragraph 1

The seventh sentence should be revised as follows: "In addition, the regulation specifies limits...approved by DOE."

15. Page 7-5, Section 7.2.2, Paragraph 3

The first sentence should be revised as follows: "DOE-Idaho Operations Office...at the Test Reactor Area as part of every 5-year review."

16. Page 7-8, Section 7.2.3, Paragraph 2

Replace the words "record of decision" with the acronym "ROD".

17. Page 7-9, Section 7.2.5, Paragraph 2

The word "Section" in the last sentence should be made plural.

18. Page 7-20, Section 7.3.2.4, Paragraph 1

The third sentence should be revised as follows: "The ability to coordinate actions...project to date."

19. Page 8-2, Section 8.1.1, Paragraph 2

The term "warm waste pond" should be capitalized in the second sentence.

20. Page 8-9, Section 8.2.1, Bullet 6

Revise the last bullet as follows: "Incorporation of features to inhibit biotic intrusion into the Warm Waste Pond 1952 and 1957 cells".

21. Page 9-13, Section 9.4, Paragraph 2

The third sentence should be revised as follows: "If excavation, treatment and disposal...will be fulfilled."

22. Appendix A, Page A-5, Comment No. 8

The second sentence should be revised to change the term "two sites" to its plural possessive form (two sites').

23. Appendix A, Page A-10, Comment No. 24

Revise the first sentence in the first paragraph of the response to indicate "at a number of release sites". In this same paragraph, rephrase a portion of the third sentence "minute quantities of RCRA listed hazardous wastes".

24. Appendix A, Page A-16, Comment No. 40

The first sentence of the response should be revised to refer to a "citizen's focus group meeting was held". In addition, the second sentence of the second paragraph of the response should refer to the "Agencies" as opposed to solely "DOE".